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August 21, 2017

via electronic filing

Marlene H. Dortch
Secretary, Office of the Secretary
Federal Communications Commission
445 12th Street, SW, Room TW-A325
Washington, DC 20554

Re: Notice of written and oral *ex parte* presentation under 47 CFR 1.1206, Accessibility of User Interfaces, and Video Programming Guides and Menus, MB Docket No. 12-108

On August 17, 2017, the following individuals meet at the FCC's office at 445 12th Street, SW, Washington, DC to discuss Honda Motor Co., LTD's July 20, 2017 interim status report:

FCC representatives:
Media Bureau – Martha Heller, Maria Mullarkey
Consumer & Governmental Affairs Bureau – Karen Peltz Strauss, Suzanne Rosen Singleton, Eliot Greenwald, Will Schell

Honda Motor Co., Ltd. representatives:
Douglas Longhitano, American Honda Motor Co., Inc. (Product Regulatory Office)
Christopher Allen, Honda North America, Inc. (Attorney)
Seun Adekoya, Honda R&D Americas, Inc. (Engineer)
Todd Hemmert, Honda R&D Americas, Inc. (Engineer)
Andrew Emerson, PORTER WRIGHT MORRIS & ARTHUR, LLP (Attorney)
Emily Taylor, PORTER WRIGHT MORRIS & ARTHUR, LLP (Attorney)

The group discussed the attached presentation, which Honda Motor Co., LTD prepared to supplement its interim status report pursuant to the limited waiver the Commission granted on March 16, 2017. The discussion followed the topics identified on each slide of the deck. Generally, the group focused on (1) how the relevant functions are made accessible and (2) the MDX timing issue identified in the interim status report. At the conclusion of the presentation, the group discussed whether Section 204 compliance was achievable for the current generation MDX in light of the identified challenges and production schedule for the vehicle.

Very truly yours,

/s/ Andrew Emerson

Andrew Emerson

Attachment: PowerPoint presentation distributed during meeting

FEDERAL COMMUNICATIONS COMMISSION

Docket No. 12-108: In the Matter of Accessibility of User Interfaces, and Video Programming Guides and Menus

Washington, D.C. 20554
August 17, 2017, 1-2 PM EST

Representatives of Honda Motor Co., Ltd.

Douglas Longhitano, American Honda Motor Co., Inc. (Product Regulatory Office)

Christopher Allen, Honda North America, Inc. (Attorney)

Seun Adekoya, Honda R&D Americas, Inc. (Engineer)

Todd Hemmert, Honda R&D Americas, Inc. (Engineer)

Andrew Emerson, Porter Wright Morris & Arthur LLP (Attorney)

Emily Taylor, Porter Wright Morris & Arthur LLP (Attorney)

Meeting Overview

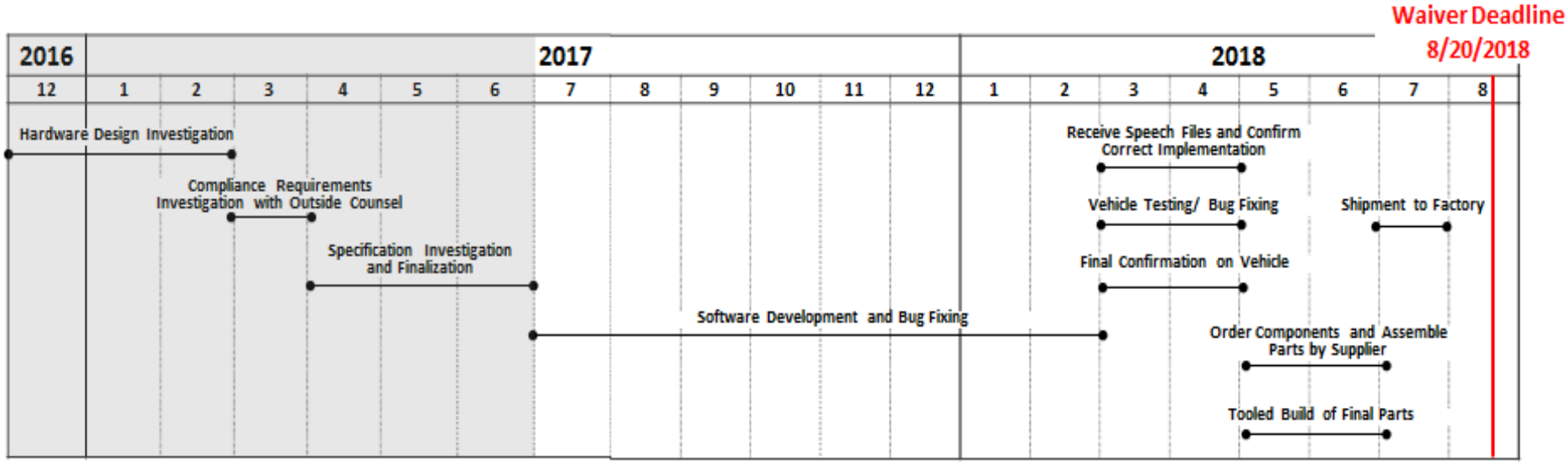
Issue	Explanation	Time
Goals	The goals of this meeting are the following: (1) Honda to provide information on the FCC's two requested topics; and (2) FCC to provide guidance on Honda's efforts to meet the regulations.	3
Topic 1	How Honda is Meeting CVAA Regulations for the Pilot and Odyssey	12
Topic 2	Honda's Technological Hurdles in Bringing the MDX in to Full CVAA Compliance	30
Discussion	Questions are welcome at any time, but this time can also be used for additional requests.	15

Topic 1: Pilot and Odyssey Compliance

	Discussion Topics	Explanation
A	Pilot and Odyssey	Overview of Timing for CVAA Compliance
B	Overview of RES System	Physical Components
		Audio
C	Overview of Informational Compliance	Documentation
		Prominent Information Display
D	Overview of Activation Compliance	Accessibility
		Subtitles
		Secondary Audio
E	Overview of Functional Compliance	Menu Option Audio Output
		Operable Without Vision
		Operable with Low Vision and Limited/No Hearing
		Operable with Little/No Color Perception

1. A. Pilot and Odyssey

No.	Item	Detail
1	Odyssey	Honda completed Phases 1 – 3 on time as proposed in the waiver request. Honda entered Phase 4, Software Development and Bug Fixing, in June. Honda is on schedule to finish development and apply the countermeasure by August 2018, as specified in the Order.
2	Pilot	



Honda is on track in making the Pilot and Odyssey CVAA compliant.

1. B. Rear Entertainment System

No.	Item	Detail
1	Physical Components	The Rear Entertainment System (RES) allows passengers to watch DVD and Blu-ray discs on a rear facing screen. The system also controls USB, Media Servers, CD and HDMI audio and video sources. A remote control operates the various functions of the source.
2	Audio	Passengers can use standard audio jack headphones, wireless infrared head phones or the vehicle speakers to listen to the audio output from the sources.

CVAA compliance requires synching multiple interrelated hardware and software systems.

1. C. Overview of Informational Compliance

No.	Item	47 CFR §	Detail
1	Documentation	79.107(d)	"Manufacturers of digital apparatus shall **ensure access to information and documentation** it provides to its customers, if achievable." **Plan**: Honda is working with an accessibility consultant to make such documentation accessible.
2	Prominent Information Display	79.107(e)	"Digital apparatus manufacturers must notify consumers that digital apparatus with the required accessibility features are available to consumers as follows … A digital apparatus manufacturer must **prominently display information about accessible digital apparatus on its Web site** in a way that makes such information available to all consumers." **Plan**: Honda will update its website with accessibility information when the features are rolled out to customers.

Honda will make appropriate CVAA information available to customers.

1. D. Overview of Activation Compliance

No.	Item	47 CFR 109(a)(1) Details	
"Manufacturers of digital apparatus designed to receive or play back video programming transmitted in digital format simultaneously with sound . . . must ensure that closed captioning **can be activated through a mechanism that is reasonably comparable to a button, key, or icon."**			
1	Accessibility	To turn on the accessibility features, either press the "Home" key on the remote control four (4) times or select to turn on the features through the OnScreen Display menus.	*How to turn ON Accessibility*  Press Home key 4 times → "Accessibility Mode Active" Audio
2	Subtitles	To turn on subtitles, either press the "Enter" key on the remote control four (4) times or select to turn on subtitles through the OnScreen Display menus.	*How to turn ON Subtitles*  Press Enter key 4 times → "Subtitles Active" Audio
3	Secondary Audio	To activate Secondary Audio (otherwise known as built in video description), either press the "Back" key four (4) times or select to turn on the audio through the OnScreen Display menus.	*How to turn ON Secondary Audio ("Built in video description")*  Press Back key 4 times → "Secondary Audio Active" Audio

Turning on CVAA modes can be easily completed by pressing a remote button or navigating menus.

1. E. Overview of Functional Compliance

No.	Item	47 CFR	Details
1	Menu Option Audio Output	79.107(a)(2)	"If on-screen text menus . . . are used . . . manufacturers . . . must ensure that those **functions are accompanied by audio output** . . . **in real time**." **Plan:** In accessibility mode, functions are announced when the "cursor" hovers over any available options, and separately announces when any specific options are selected.
2	Operable Without Vision, Low Vision, Limited/No Hearing	79.107(a)(3)	**Plan:** Documentation provided in an accessible format will allow blind or visually impaired users to activate accessibility mode, at which point audio announcements will allow the user to navigate the system without needing any visual guidance. Additionally, the headphones provided with the RES can be operated without visual cues.
3	Operable with Little/No Color Perception	79.107(a)(3)	**Plan:** Same as above for Low Vision. The accessibility features will also be in compliance with 47 C.F.R. 79.103 color option requirements with four colored buttons on the remote. Dimples or lettering are being investigated to differentiate them on a basis other than color.

Honda's CVAA solution is robust enough to apply across multiple disability issues.

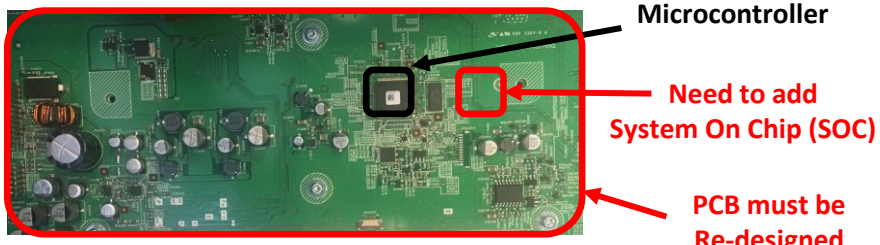
Topic 2: MDX Discussion Agenda

	Discussion Topics	Explanation
A	Why current MDX cannot support CVAA	Microcontroller, RAM, ROM, HMI are insufficient
B	Why the development process needs until May 2020	Add SOC (system on chip)
		Support current mass production functions
		Add CVAA
		Re-validate
	Why Supplier B cannot move any faster	Solution is not “drop-in”, PCB must be re-designed
	How much HRA has pushed Supplier B to improve on timing	Supplier B has pushed back citing lack of expertise and new SOC development
C	Why HRA cannot swap Pilot solution for MDX	Communication network is entirely different
		All infotainment parts are different
		Automotive grade re-Validation
D	The alternatives	Stop sale of RES
		Make RES dummy screen

2. A. Why Current MDX cannot meet CVAA

No.	Item	Added Requirement(s)	Purpose	Current System	Required System
1	Microcontroller	Text-To-Speech (TTS) Engine	All on-screen text must have speech feedback	32 MIPS	**65** MIPS
		More Complex System Management	Speech feedback must be available while media content is playing		
			Speech feedback must be available in all supported system languages		
			Speech feedback must be available for all remote control keys		
			Speech feedback must be available when command is initiated by front passenger		
2	Random Access Memory (RAM)	Increased Memory	Text-To-Speech engine must be run	1 MB	**2** MB
3	Read-Only Memory (ROM)		Screens that have additional cursor movement must be stored	60 KB	**5** MB
			Text to Speech Software Stack must be stored		
4	Human Machine Interface (HMI)	Additional Cursor Movement	On-screen items not normally selectable by system cursor must be made so	HMI partially selectable	**All HMI** must be selectable

MIPS = Million Instructions Per Second MB = Megabyte(s), KB = Kilobyte(s)



MDX Rear Display Printed Circuit Board (PCB)

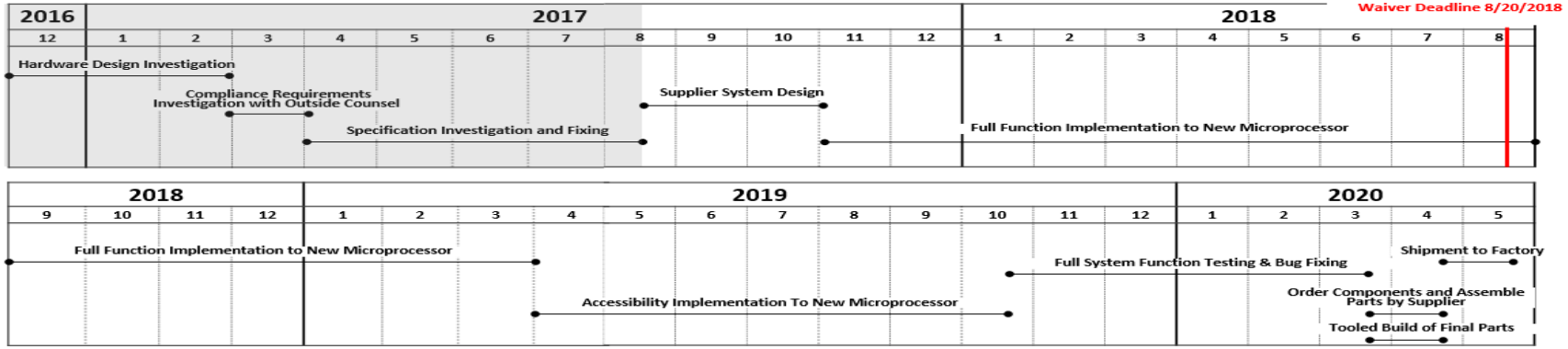
	Required for CVAA Compliance
Add System on Chip	Yes
Re-design Printed Circuit Board	Yes
Re-implement Current System Functions	Yes
Add CVAA Speech Feedback	Yes
Re-validate All Functions	Yes

Rear Display Hardware must be entirely re-designed to meet CVAA

Current MDX Hardware does not have the required speed, memory, and HMI to meet CVAA.

2. B. Why MDX development needs until 2020

No.	Owner	Category	Detail	Activity	Time
1	Supplier B	System On Chip (SOC)	System Design	Power Control of Connected Devices	2.5 months
				Communication with Microcontroller	
				Video Output and Backlighting Control	
2			Full Function	Implementation of all features and modes (AM/FM/XM/DVD/CD/AUX-VIDEO/AUX-AUDIO/USB/HDMI)	17 months
3			CVAA	Text-To-Speech Engine	6.5 months
				HMI Additional Cursor Movement	
4	Supplier B -and- Honda	System Validation	Full Function	Testing of all features and modes (AM/FM/XM/DVD/CD/AUX-VIDEO/AUX-AUDIO/USB/HDMI)	5 months
			Bug Fixing	Fixing of all software issues found	
5	Supplier B	Procurement	Part Assembly	Order and assemble tooled parts	1 month
6		Delivery	Part Shipment	Ship parts to Honda Factory	1 month



Honda pushed for improved timing. However, Supplier B cited lack of expertise with Text-to-Speech engine and new microprocessor development as major stumbling blocks.

2. C. Why Pilot Solution Cannot Be Used

No.	Category	Item	Pilot vs MDX Difference Detail
1	Communication Network	Physical Layer	Cabling and connectors used are entirely different
		Protocol	Encryption standards are different
			Data sending/receiving timings are different
			Message structure is different
			Communication bandwidth is different
		Topology	All infotainment parts are connected to one another in Pilot topology, not so for MDX
		Unit Location	Location of select infotainment units is different
2	Infotainment Parts	Unit Hardware	All MDX infotainment parts would need to be replaced with Pilot parts due to interconnected topology (Head Unit/ Rear Entertainment/Tuner/Amplifier/Disc Player/Meter)
3	Automotive Grade Re-validation (Both Bench and Vehicle Level)	Environmental	High and Low Temperature Tests must be reconfirmed
			High and Low Humidity Tests must be reconfirmed
			Dust, Light and Chemical Exposure Tests must be reconfirmed
		Electromagnetic	Electromagnetic Emissions must be reconfirmed
			Electromagnetic Susceptibility must be reconfirmed
		Electrical	Current Surge Tests must be reconfirmed
			Voltage Surge Tests must be reconfirmed
		Mechanical	Vibration Tests must be reconfirmed
			Impact Tests must be reconfirmed
		Durability	Repetitive/ Protracted Use Tests must be reconfirmed

Pilot solution cannot be used on MDX as the two vehicles apply entirely different systems.

2. D. Absent Extension of Waiver - The Alternatives

No.	Item	Detail	Support
1	Dummy Display with AUX Input	AUX	O
		AM	X
		FM	X
		XM	X
		DVD	X
		CD	X
		USB	X
		HDMI	X
2	Stop Sale of RES	Rear Entertainment System is removed from the MDX	N/A

O = Function will be supported, X = Function will not be supported

Two negative alternatives result unless the waiver is extended.

Discussion

Questions?